

## Remarks

Claims 1-24 are pending in the application. Claims 1, 8, and 21 have been amended.

The specification has been amended. Figure 3 of the drawings has been amended. New claims 25-28 have been added to the application. Re-examination and reconsideration of the application is respectfully requested for the reasons set forth herein.

1. The Examiner has stated that the Information Disclosure Statement filed on January 16, 2002 fails to comply with 37 CFR 1.98(a)(2), because the Information Disclosure Statement failed to provide a legible copy of each publication listed. The Examiner further stated that U.S. Patent No. 5,653,009 which was listed on the Information Disclosure Statement was not considered because it did not appear to be related to the Applicant's claimed invention.

A copy of each publication listed in the Information Disclosure Statement is enclosed. The Examiner's consideration of these references is respectfully requested.

2. The Examiner has objected to the drawings for failing to comply with 37 CFR 1.84(p)(5), because the drawings fail to include all of the reference numbers mentioned in the description. Specifically, the Examiner stated that the reference numbers 2 and 5 are not shown in the figures. A proposed drawing correction shown in red has been submitted showing reference number 2 in Figure 3. The reference number 5 has been deleted from the description in an amendment to the specification discussed hereafter. Removal of the objection to the drawings under 37 CFR 1.84(p)(5) is respectfully requested.

3. The Examiner has objected to the disclosure because of several informalities. Specifically, the Examiner stated that: on page 4, lines 16-17, the language “the top layer 8” should be “the top layer 7”; on page 5, line 20, the language “position” should be “positioned”; on page 6, lines 4, 7, and 10, the language “adhesive 5” should be “adhesive 20”; and on page 7, line 23, the language “will by” should be “will be.” The specification has been amended to reflect the changes proposed by the Examiner. Removal of the objection to the specification because of informalities is respectfully requested.

4. The Examiner has objected to claim 21 because of an informality. Specifically, the Examiner stated that claim 21 is not in one sentence form. Claim 21 has been amended to put the claim in one sentence form. Removal of the objection to claim 21 is respectfully requested.

5. The Examiner has rejected claims 1, 3, 6-8, 10-14, 16, 19-20, and 24 under 35 U.S.C. 102(b) as being anticipated by Mashunkashey et al. (US Patent No. 5,714,219).

In regard to claim 1, the Examiner stated that Mashunkashey et al. discloses a flooring system comprising a subfloor 43, a decorative top layer 41, 51, and a substrate 21 having a top surface and an oppositely facing bottom surface. The bottom surface of the substrate 21 is positioned proximate the subfloor. The top surface of the substrate 21 is positioned proximate the decorative top layer 41, 51. The substrate has voids (column 4, lines 65-66) which extend between the top surface and the bottom surface. The substrate is manufactured from rubber 23 in sheets that are capable of being cut to a desired configuration. The substrate has the strength characteristics to support the decorative layer and prevent damage thereto and the sound dampening characteristics to provide decibel reduction through the substrate, because

Mashunkashey et al. discloses all of the structural features disclosed in the claim and will, therefore, be inherently capable of performing the same functions disclosed by the Applicant in claim 1. The Examiner, therefore, concluded that Mashunkashey et al. teaches all of the elements of claim 1.

Mashunkashey et al. does not teach all of the claim limitations of claim 1. Claim 1 has been amended to correct grammatical errors and antecedent basis. Claim 1 states that the flooring system comprises a substrate having voids which extend between the top surface and the bottom surface. Mashunkashey et al. teaches a three-dimensional member 21, 51 comprising a mixture of shredded tire particles and polyurethane placed in a compression mold system. Pressure is applied to the mixture at about 50 to 180 pounds per square inch to form rectangular members 21 used to support a walking surface 41 or cylindrical posts <sup>61</sup>~~51~~ used as rail supports for highway purposes. The rectangular members 21 and the cylindrical posts <sup>61</sup>~~51~~ produced by this process are porous to water. Because Mashunkashey et al. teaches rectangular members 21 and cylindrical posts <sup>61</sup>~~51~~ having randomly positioned pores and not a substrate having voids extending from a top surface to a bottom surface of the substrate, Mashunkashey et al. does not teach all of the claim limitations of claim 1. Removal of the rejection of claim 1 under 35 U.S.C. 102(b) is respectfully requested.

Claims 3 and 6-7 depend from independent claim 1. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 1. Because Mashunkashey et al. does not teach all of the elements of claim 1, Mashunkashey et al. does not teach all of the elements of claims 3 and 6-7. Removal of the rejection of claims 3 and 6-7 under 35 U.S.C. 102(b) is respectfully requested.

In regard to claims 8 and 13, the Examiner stated that Mashunkashey et al. discloses a substrate 21 for use in a flooring system which has a subfloor 43 and a decorative upper layer 41, 51. The substrate comprises a continuous sheet 21 having a bottom surface, a top surface, side surfaces, and end surfaces. The top surface and the oppositely facing bottom surface are essentially parallel to each other and are spaced apart by a thickness of the substrate. The substrate has voids (column 4, lines 65-66). The voids are provided between particles 23 of rubber. The member 21 may be used as a sound absorbent wall (column 5, line 6). When the substrate is positioned between the subfloor and the decorative top layer, the particles 23 of rubber provide the strength required to prevent defamation of the substrate in the direction of the thickness and the voids are inherently capable of contributing to the sound dampening characteristics that will provide decibel reduction across the thickness of the structure. The Examiner, therefore, concluded that Mashunkashey et al. teaches all of the elements of claims 8 and 13.

Claim 8 has been amended to state that voids are provided in the substrate, the voids are provided between particles of rubber such that when the substrate is positioned between the subfloor and the decorative top layer, the particles of rubber provide the strength required to prevent defamation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Mashunkashey et al. teaches a resilient support member 21, which may be used as a support roadway or pathway support or as a sound absorbent wall. The support member 21 is formed to be resilient and porous to water. The structure of Mashunkashey et al. does not teach positioning voids between particles of rubber in such a way as to contribute to the sound dampening characteristics of the substrate as required by claim 8 to provide decibel reduction

across the thickness of the substrate. Mashunkashey et al., therefore, does not contain every  
element recited in claim 8 in as complete detail as contained in claim 8. Removal of the  
rejection of claim 8 under 35 U.S.C. 102(b) is respectfully requested.

Claims 10-12 depend from independent claim 8. As previously discussed,  
Mashunkashey et al. does not teach all of the elements of amended claim 8. Because  
Mashunkashey et al. does not teach all of the elements of amended claim 8, Mashunkashey et al.  
does not teach all of the elements of claims 10-12. Removal of the rejection of claims 10-12  
under 35 U.S.C. 102(b) is respectfully requested.

Mashunkashey et al. does not teach all of the elements of claim 13. Claim 13 states that  
voids are provided in the substrate, the voids are provided between particles of material of the  
substrate, such that the particles of material provide the strength required to prevent deformation  
of the substrate in the direction of the thickness and the voids contribute to the sound dampening  
characteristics required to provide decibel reduction across the thickness of the substrate.  
Mashunkashey et al. teaches a resilient support member 21, which may be used as a support  
roadway or pathway support or as a sound absorbent wall. The support member 21 is formed to  
be resilient and porous to water. Mashunkashey et al. does not teach the positioning of voids  
between particles of rubber that contribute to the sound dampening characteristics required to  
provide decibel reduction across the thickness of the substrate. Because the structure of  
Mashunkashey et al. does not teach positioning voids between particles of rubber in such a way  
as to contribute to the sound dampening characteristics of the substrate, Mashunkashey et al.  
does not teach every element recited in claim 8 in as complete detail as contained in the claim.  
Removal of the rejection of claim 13 under 35 U.S.C. 102(b) is respectfully requested.

Claims 14, 16, and 19-20 depend from independent claim 13. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 13. Because Mashunkashey et al. does not teach all of the elements of claim 13, Mashunkashey et al. does not teach all of the elements of claims 14, 16, and 19-20. Removal of the rejection of claims 14, 16, and 19-20 under 35 U.S.C. 102(b) is respectfully requested.

Claim 24 depends from claim 21. The Examiner has not rejected claim 21 under 35 U.S.C. 102(b) and, therefore, the Examiner has not shown that Mashunkashey et al. teaches all of the elements of claim 21. Because it has not been shown that Mashunkashey et al. teaches all of the elements of claim 21, Mashunkashey et al. does not teach all of the elements of claim 24. Removal of the rejection of claim 24 under 35 U.S.C. 102(b) is respectfully requested.

6. The Examiner has rejected claims 7, 12, 20, 2, 9, 15, and 21-24 under 35 U.S.C. 103(a) as being unpatentable over Mashunkashey et al. (US Patent No. 5, 714,219).

In regard to claims 7, 12, and 20, the Examiner stated that Mashunkashey et al. discloses the claimed invention as previously discussed, except for the sound dampening characteristics exhibiting a decibel reduction of approximately 20 dB for a substrate with a thickness of 5 mm. The Examiner further stated that it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate of Mashunkashey et al. have a decibel reduction of 20 dB for a substrate of 5 mm, because it has been held that where the general conditions of a claim are disclosed in the prior art discovering the optimum or workable ranges involves only routine skill in the art. The Examiner, therefore, concluded that since the Applicant's structure and the structure of Mashunkashey et al. are the same, the structure will inherently be capable of performing the same functions.

Claim 7 depends from independent claim 1. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 1. Specifically, Mashunkashey et al. does not teach a substrate having voids which extend between the top surface and the bottom surface. Because Mashunkashey et al. does not teach all of the elements of claim 7 except the substrate having a decibel reduction of 20 dB for a substrate of 5 mm, Mashunkashey et al. does not teach or suggest all of the elements of claim 7. Because the Examiner has failed to set forth a prima facie case of obviousness, removal of the rejection of claim 7 under 35 U.S.C. 103(a) is respectfully requested.

Claim 12 depends from independent claim 8. As previously discussed, Mashunkashey et al. does not teach all of the elements of amended claim 8. Specifically, Mashunkashey et al. does not teach that voids are provided in the substrate, the voids are provided between particles of rubber such that when the substrate is positioned between the subfloor and the decorative top layer, the particles of rubber provide the strength required to prevent defamation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Because Mashunkashey et al. does not teach all of the elements of claim 12 except the substrate having a decibel reduction of 20 dB for a substrate of 5 mm, Mashunkashey et al. does not teach or suggest all of the elements of claim 12. Removal of the rejection of claim 12 under 35 U.S.C. 103(a) is respectfully requested.

Claim 20 depends from independent claim 13. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 13. Specifically, Mashunkashey et al. does not teach that voids are provided in the substrate, the voids are provided between particles of material of the substrate, such that the particles of material provide the strength required to

prevent defamation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Because Mashunkashey et al. does not teach all of the elements of claim 20 except a decibel reduction of 20 dB for a substrate of 5 mm, Mashunkashey et al. does not teach or suggest all of the elements of claim 20. Because the Examiner has failed to set forth a prima facie case of obviousness, removal of the rejection of claim 20 under 35 U.S.C. 103(a) is respectfully requested.

In regard to claims 2, 9, and 15, the Examiner stated that Mashunkashey et al. discloses the claimed invention as previously discussed, except for the density of the substrate being less than 1000 kilograms per meter cubed. The Examiner further stated that it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate of Mashunkashey et al. with a density of less than 1000 kilogram per meter cubed since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. The Examiner, therefore, concluded that since the substrate of Mashunkashey et al. and the Applicant's substrate are made of the same materials and are being used for the same function that it would have been obvious to make both substrates of the same density.

Claim 2 depends from independent claim 1. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 1. Specifically, Mashunkashey et al. does not teach a substrate having voids which extend between the top surface and the bottom surface. Because Mashunkashey et al. does not teach all of the elements of claim 2 except for the density of the substrate being less than 1000 kilograms per meter cubed, Mashunkashey et al. does not teach or suggest all of the elements of claim 2. Because the Examiner has failed to set forth a



prima facie case of obviousness, removal of the rejection of claim 2 under 35 U.S.C. 103(a) is respectfully requested.

Claim 9 depends from independent claim 8. As previously discussed, Mashunkashey et al. does not teach all of the elements of amended claim 8. Specifically, Mashunkashey et al. does not teach that voids are provided in the substrate, the voids are provided between particles of rubber such that when the substrate is positioned between the subfloor and the decorative top layer, the particles of rubber provide the strength required to prevent defamation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Because Mashunkashey et al. does not teach all of the elements of claim 9 except for the density of the substrate being less than 1000 kilograms per meter cubed, Mashunkashey et al. does not teach or suggest all of the elements of claim 9. Removal of the rejection of claim 9 under 35 U.S.C. 103(a) is respectfully requested.

Claim 15 depends from independent claim 13. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 13. Specifically, Mashunkashey et al. does not teach that voids are provided in the substrate, the voids are provided between particles of material of the substrate, such that the particles of material provide the strength required to prevent defamation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Because Mashunkashey et al. does not teach all of the elements of claim 15 except for the density of the substrate being less than 1000 kilograms per meter cubed, Mashunkashey et al. does not teach or suggest all of the elements of claim 15. Because the Examiner has failed to

set forth a prima facie case of obviousness, removal of the rejection of claim 15 under 35 U.S.C. 103(a) is respectfully requested.

In regard to claim 21, the Examiner stated that that Mashunkashey et al. discloses a substrate 21 for use in a flooring system which has a subfloor 43 and a decorative upper layer 41, 51. The substrate comprises a sheet 21 having a bottom surface, a top surface, side surfaces, and end surfaces. The top surface and the oppositely facing bottom surface are essentially parallel to each other and are spaced apart by a thickness of the substrate. The substrate has voids (column 4, lines 65-66). The member 21 may be used as a sound absorbent wall (column 5, line 6). When the substrate is positioned between the subfloor and the decorative top layer, the particles 23 of rubber provide the strength required to prevent deformation of the substrate in the direction of the thickness and the voids are inherently capable of contributing to the sound dampening characteristics that will provide decibel reduction across the thickness of the structure. The Examiner further stated that Mashunkashey et al. does not disclose the density of the substrate being less than 1000 kilograms per meter cubed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate of Mashunkashey et al. with a density of less than 1000 kilogram per meter cubed since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. The Examiner, therefore, concluded that since the substrate of Mashunkashey et al. and the Applicant's substrate are made of the same materials and are being used for the same function that it would have been obvious to make both substrates of the same density.

Claim 21 has been amended to state that voids are provided in the substrate, the voids are provided between particles of the sheet, the sheet has a density of less than 1000 kilograms per

meter cubed, such that when the substrate is positioned between the subfloor and the decorative top layer, the particles provide the strength required to prevent deformation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Mashunkashey et al. teaches a resilient support member 21, which may be used as a support roadway or pathway support or as a sound absorbent wall. The support member 21 is formed to be resilient and porous to water. The structure of Mashunkashey et al. does not teach positioning voids between particles of rubber such that the sheet has a density of less than 1000 kilograms per meter cubed to contribute to the sound dampening characteristics of the substrate to provide decibel reduction across the thickness of the substrate. Mashunkashey et al., therefore, does not teach or suggest every element recited in claim 21. Removal of the rejection of claim 21 under 35 USC 103(a) is respectfully requested.

Claims 22-24 depend from independent claim 21. As previously discussed, Mashunkashey et al. does not teach or suggest all of the claim limitations of claim 21. Because Mashunkashey et al. does not teach or suggest all of the claim limitations of claim 21, Mashunkashey et al. does not teach or suggest all of the claim limitations of claims 22-24. Removal of the rejection of claims 22-24 under 35 U.S.C. 103(a) is respectfully requested.

7. The Examiner has rejected claims 4-5, and 17-18 under 35 U.S.C. 103(a) as being unpatentable over Mashunkashey et al. (US Patent No. 5,714,219) in view of Ducharme (US Patent No. 6,213,252).

In regard to claims 4-5 and 17-18, the Examiner stated that Mashunkashey et al. discloses the claimed invention as previously discussed, except for the substrate being fixed to the subfloor

and the top layer by means of an adhesive. The Examiner further stated that Ducharme teaches fixing the sound absorbing rubber substrate to a subfloor and a top layer. Although Ducharme does not teach using an adhesive to fix the substrate to the subfloor or the top layer, it would have been obvious to one having ordinary skill in the art to use an adhesive to fix the top layer and the subfloor to the substrate. The Examiner, therefore, concluded that it would have been obvious to one having ordinary skill in the art at the time the invention was made to adhesively attach the substrate of Mashunkashey et al. to the top layer and to the subfloor to prevent separation with respect to the substrate.

Claims 4-5 depend from independent claim 1. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 1. Specifically, Mashunkashey et al. does not teach a substrate having voids which extend between the top surface and the bottom surface. Because Mashunkashey et al. does not teach all of the elements of claims 4-5 except for the substrate being fixed to the subfloor and the top layer by means of an adhesive, Mashunkashey et al. does not teach or suggest all of the elements of claims 4-5. Because the Examiner has failed to set forth a prima facie case of obviousness, removal of the rejection of claims 4-5 under 35 U.S.C. 103(a) is respectfully requested.

Claims 17-18 depend from independent claim 13. As previously discussed, Mashunkashey et al. does not teach all of the elements of claim 13. Specifically, Mashunkashey et al. does not teach that voids are provided in the substrate, the voids are provided between particles of material of the substrate, such that the particles of material provide the strength required to prevent deformation of the substrate in the direction of the thickness and the voids contribute to the sound dampening characteristics required to provide decibel reduction across the thickness of the substrate. Because Mashunkashey et al. does not teach all of the elements of

claims 17-18 except for the substrate being fixed to the subfloor and the top layer by means of an adhesive, Mashunkashey et al. does not teach or suggest all of the elements of claims 17-18. Because the Examiner has failed to set forth a prima facie case of obviousness, removal of the rejection of claims 17-18 under 35 U.S.C. 103(a) is respectfully requested.

8. The Examiner has rejected claims 1-7 under 35 U.S.C. 103(a) as being unpatentable over Ducharme (US Patent No. 6,213,252) in view of Mashunkashey et al. (US Patent No. 5,714,219).

In regard to claim 1, the Examiner stated that Ducharme discloses a flooring system comprising a subfloor 22, a decorative top layer 20, and a sound absorbing substrate 10. The sound absorbing substrate 10 comprises a sheet having a top surface and an oppositely facing bottom surface. The bottom surface is positioned proximate the subfloor, and the top surface is positioned proximate the decorative top layer. The substrate has particles of rubber that form a sheet, which is cut to fit a desired configuration. Ducharme does not disclose that the substrate has voids located between the particles of rubber that extend between the top and bottom surfaces. The Examiner further stated that Mashunkashey et al. teaches a substrate having voids. The Examiner therefore concluded that it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the sound absorbing rubber particle sheet of Mashunkashey et al. for the sound absorbing rubber particle sheet of Ducharme, because both sheets will absorb the sound that is produced from walking on the floor. Further, since the substrate of Mashunkashey et al. has voids, it will also allow moisture to travel through the substrate and out of the floor system. The Examiner, therefore, concluded that the combination of Ducharme in view of Mashunkashey et al. teaches or suggests all of the elements of claim 1.

The combination of Ducharme in view of Mashunkashey et al. does not teach or suggest all of the claim limitations of claim 1. Claim 1 states that the flooring system comprises a substrate having voids which extend between the top surface and the bottom surface. Ducharme teaches a sound absorbing substrate 10 having a bottom surface 12 provided with grooves 16. The grooves 16 are formed such that only a portion of the bottom surface 12 of the substrate 10 contacts a subfloor 22. Mashunkashey et al. teaches a three-dimensional member 21, 51 comprising a mixture of shredded tire particles and polyurethane placed in a compression mold system. Pressure is applied to the mixture at about 50 to 180 pounds per square inch to form rectangular members 21 used to support a walking surface 41 or cylindrical posts 51 used as rail supports for highway purposes. The rectangular members 21 and the cylindrical posts 51 produced by this process are porous to water. Because Ducharme teaches a bottom surface 12 of a substrate 10 provided with grooves 16 and Mashunkashey et al. teaches rectangular members 21 and cylindrical posts 51 having randomly positioned pores, neither Ducharme nor Mashunkashey et al. teach or suggest a substrate having voids extending from a top surface to a bottom surface. Because the Examiner has failed to set forth a prima facie case of obviousness, removal of the rejection of claim 1 under 35 U.S.C. 102(b) is respectfully requested.

Claims 2-7 depend from independent claim 1. As previously discussed, the combination of Ducharme in view of Mashunkashey et al. does not teach or suggest all of the claim limitations of claim 1. Specifically, neither Ducharme nor Mashunkashey et al. teach or suggest a substrate having voids extending from a top surface to a bottom surface of the substrate. Because the combination of Ducharme in view of Mashunkashey et al. does not teach or suggest all of the claim limitations of claim 1, the combination of Ducharme in view of Mashunkashey et al. does not teach or suggest all of the claim limitations of claims 2-7. Because the Examiner has

failed to set forth a prima facie case of obviousness, removal of the rejection of claims 2-7 under 35 U.S.C. 103(a) is respectfully requested.

9. New claims 25-28 have been added to the application.

Claim 25 depends from independent claim 1. Because claim 1 is considered to be in condition for allowance for the reasons set forth herein, claim 25 is also considered to be in condition for allowance.

Claim 26 depends from independent claim 13. Because claim 13 is considered to be in condition for allowance for the reasons set forth herein, claim 26 is also considered to be in condition for allowance.

Claim 27 depends from independent claim 21. Because claim 21 is considered to be in condition for allowance for the reasons set forth herein, claim 27 is also considered to be in condition for allowance.

Claim 28 is considered to be in condition for allowance because the prior art fails to teach or suggest a method of manufacturing a substrate for preventing the transmission of sound, comprising curing a mixture of rubber and polyurethane to form a cylindrical member of rubber and cutting a continuous sheet from an outside layer of the cylindrical member to form the substrate.

The examination of new claims 25-28 is respectfully requested.

In view of the argument and amendments presented herein, the application is considered to be in condition for allowance. Reconsideration and passage to issue is respectfully requested.

**A check in the amount of \$156 is enclosed for the addition of four (4) additional claims in excess of twenty under 37 CFR 1.16(c) and the addition of one (1) independent claim in excess of three under 37 CFR 1.16(b). Please charge any additional fees associated with this application to Deposit Order Account No. 501581.**

Respectfully submitted,

Paul Charles Downey, Applicant

A handwritten signature in cursive script, appearing to read "J M Slonaker", is written over a horizontal line.

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